

October-05-12 9:24:17 AM

Page 1

Quality Control

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data <input type="checkbox"/>									
Equip/Tooling <input type="checkbox"/>									
Operator <input type="checkbox"/>									
Material <input type="checkbox"/>									
Setup <input type="checkbox"/>									
Other <input type="checkbox"/>									
Process <input type="checkbox"/>									
Supplier <input type="checkbox"/>									
Training <input type="checkbox"/>									
Unapproved <input type="checkbox"/>									

FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
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October-05-12 9:24:17 AM

91287

Page 2

Accept

N900040100

Setup Start *NS1*

Stop *NS2*

Item Name: Cutter Sub Assembly

Start Date: 10/15/12 **Start Qty:** 26.00

26

Cust Item ID:

Required Date: 10/31/12 **Req'd Qty:** 26.00

26

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/
Work Center ID

Operation Description

Set Up/ Run Hours

Tool ID

Tool #

Plan Code

**Accept
Qty**

Reject
QtyReject
Number

**Insp.
Stamp**

140

Identify as per dwg & Stock Location:

0.00

140

Packaging

Memo

0.00

Packaging

150

QC21- Final Inspection - Work Order Release

0.00

150

QC

Memo

0.00

Quality Control

MCJ 13-0570

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
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Picklist Print

October-05-12 9:24:16 AM

Page 1

Work Order ID: 91287
 Parent Item: 646.9701
 Parent Item Name: Cutter Sub Assembly

Start Date: 10/15/12 Required Date: 10/31/12
 Start Qty: 26.00 Required Qty: 26.00

Comments: IPP REV:A 12.08.13 NEW ISSUE DD VERF:JFS

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
646.9710 Body		Manufactured	No	91439		110	Each	0.0000	1	26	26	13-4-25	
646.9711 Blade		Manufactured	No	91266		110	Each	0.0000	2	52	40	13-4-25	
MS21042L08 Nut		Purchased	No	90824		110	Each	1,339.0000	6	156			
				<u>Location</u>		<u>Loc Qty</u>	<u>Loc Code</u>						
				315	123900	47		156					
					122452	47							
				ST315		500							
					122814	500							
				ST317		792							
					122141	792							
MS27039-08-19 Screw		Purchased	No	124579		110	Each	0.0000	6	156	78	13-4-25	
NAS1149FN832P Washer		Purchased	No	123525		110	Each	325.0000	12	312	78	13-4-25	
				<u>Location</u>		<u>Loc Qty</u>	<u>Loc Code</u>						
				275		200							
					122441	200							
				ST275		125							
					115158	125							
				123900				312					

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

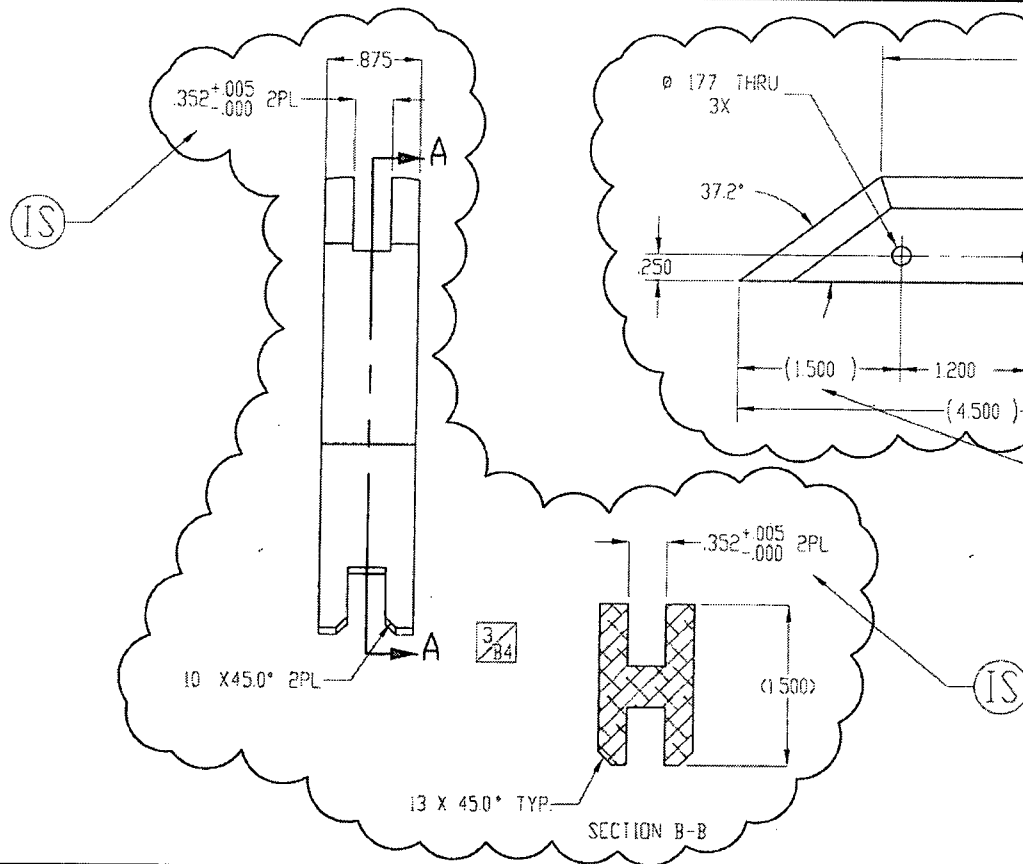
QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>						
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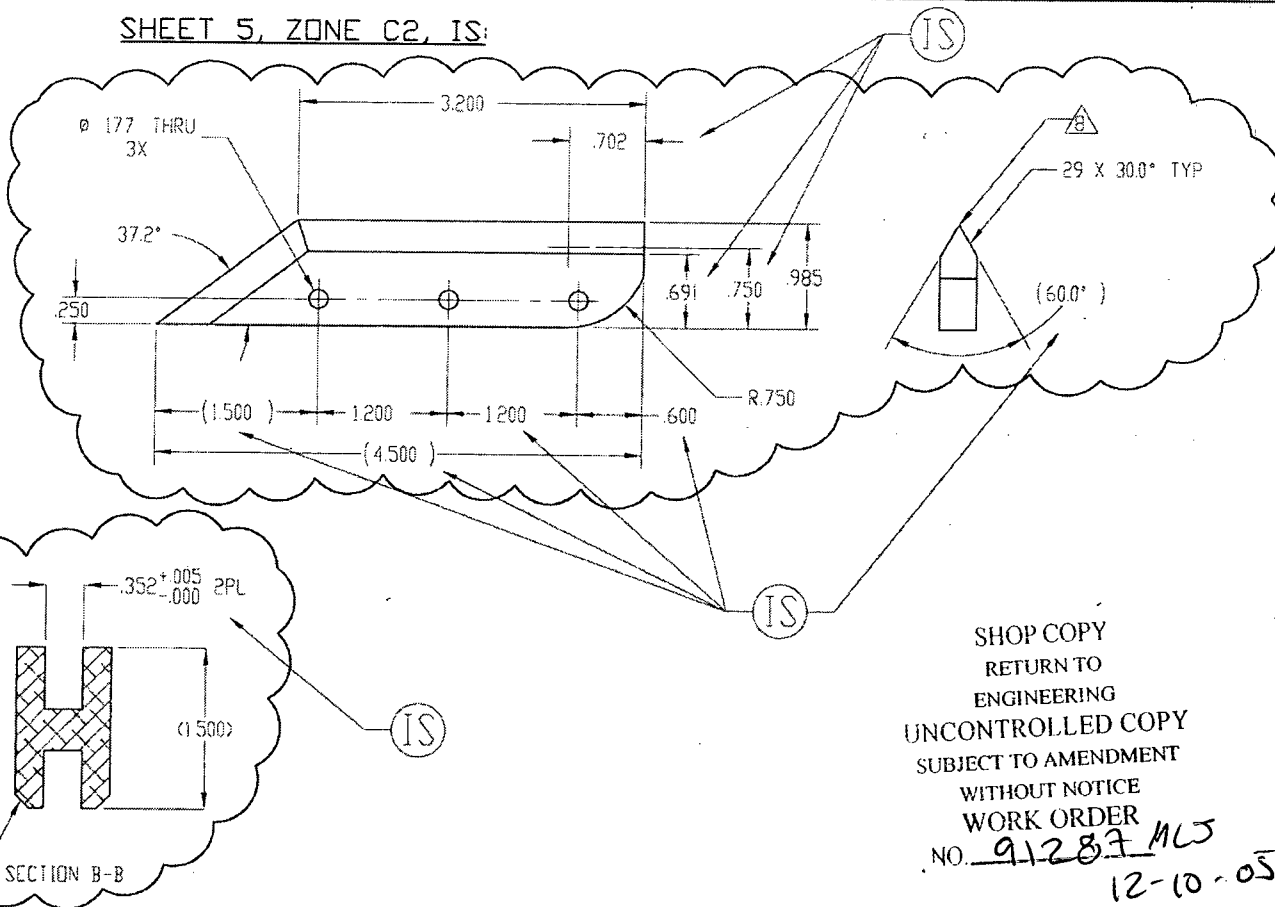
APICAL
INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO. 02744		SHEET 1 OF 1	
DWG NO. 646.9700	REV: N/C	PREPARED BY S. HUFF	DATE: 01/07/10
DWG TITLE: CUTTER SUB ASSY		EFFECT ON DWG <input type="checkbox"/> INC. <input checked="" type="checkbox"/> UNINC.	
APPROVED BY: ENGR <i>[Signature]</i>	MFG <i>[Signature]</i>	QC <i>[Signature]</i>	EFF: NEXT ORDER
REASON: REVISED SCREW LENGTH, CHANNEL WIDTHS & DIMENSIONING SCHEME SHEET 5.			

SHEET 2, ZONE C6, IS:



SHEET 5, ZONE C2, IS:



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 91287 MLJ
12-10-05

3	R	601.3157	12	SCREW	MS27039-0818
			.9701		
F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION
DOCUMENTS EFFECTED:				<input type="checkbox"/> MDL <input type="checkbox"/> INSTALL INSTRU <input checked="" type="checkbox"/> ICA <input type="checkbox"/> FMS <input checked="" type="checkbox"/> BOM	CHANGE CATEGORY <input type="checkbox"/> MAJOR <input checked="" type="checkbox"/> MINOR
				DER REVIEW REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	

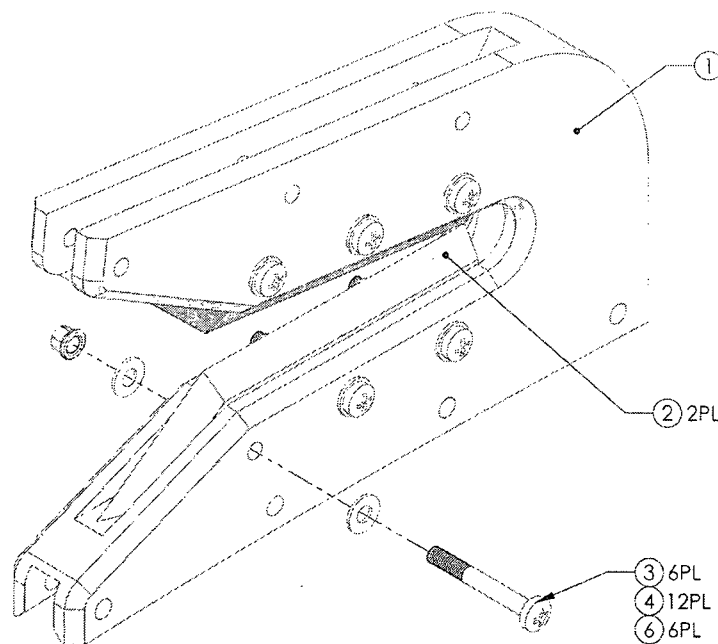
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REV	DESCRIPTION	DATE	APPROVED
1	ISSUED FOR PRODUCTION	05/27/09	1. B. J. JO

NOTES:

- 1 MATERIAL: ALUMINUM 7075-T651 PER AMS-QQ-A-250/12
- 2 FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2, COLOR BLACK; CARDINAL 4860-50 PRETREATMENT PRIMER; PRIME IAW MIL-P-23377 J TYPE I CLASS N; 1-2 MIL MAX
- 3 MATERIAL: AISI A2 TOOL STEEL; CONDITION: ANNEALED; POST PROCESS: HEAT TREAT TO 58-62 RC ROCKWELL HARDNESS
- 4 FINISH: PRIME IAW MIL-P-23377 J TYPE I CLASS N; 1-2 MIL MAX
- 5 DEBURR AND BREAK ALL SHARP EDGES EXCEPT WHERE OTHERWISE NOTED
- 6 IDENTIFY IAW MPP-120
- 7 APPLY F/N 5 AS REQUIRED TO ALL FAYING SURFACES OF F/N 2 UPON ASSEMBLY
- 8 CUTTING EDGE INTENDED TO BE SHARP, DO NOT BREAK SHARP EDGE

91287



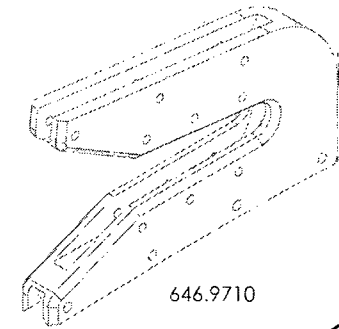
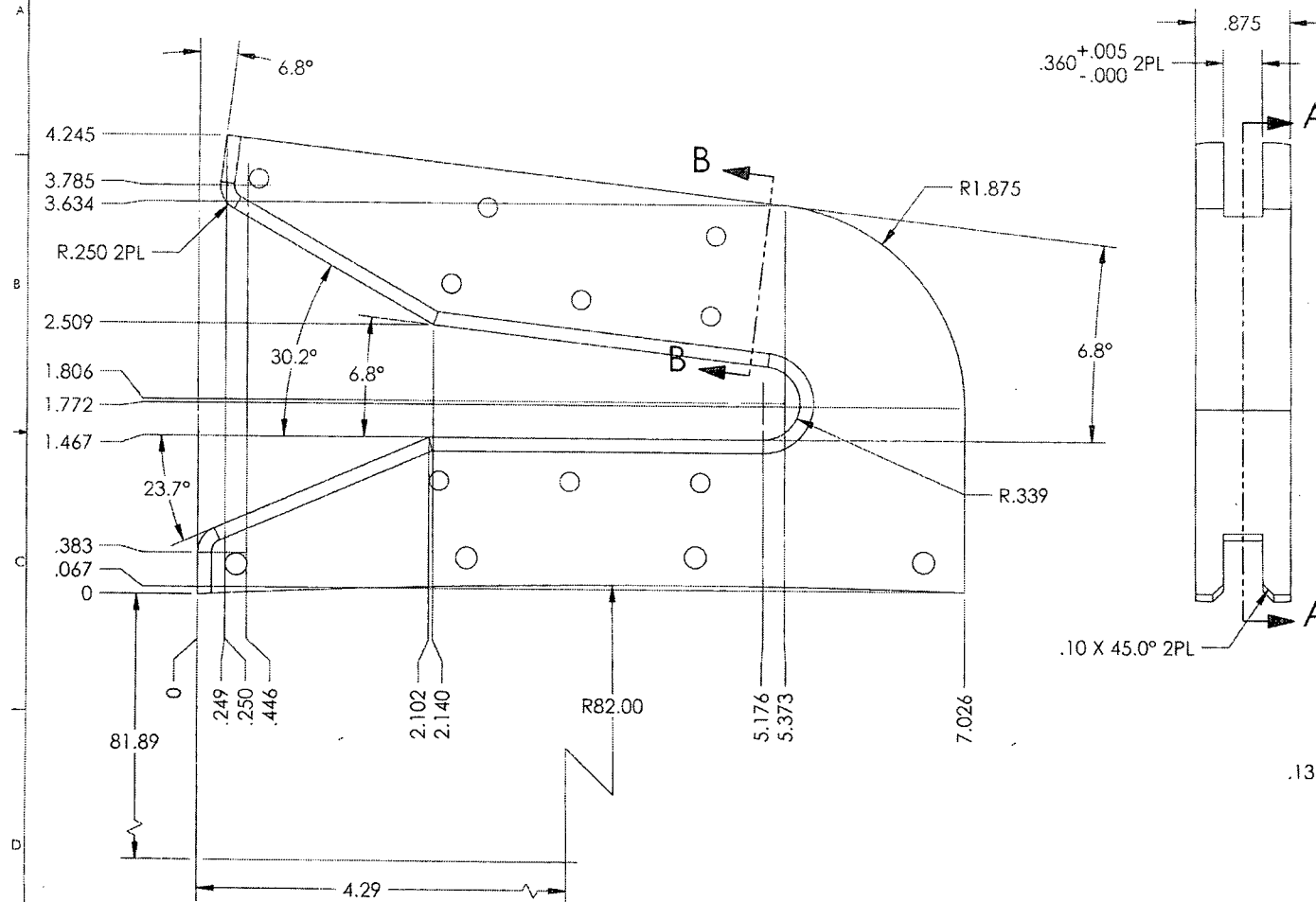
646.9701

UNINCORPORATED ECN(s)

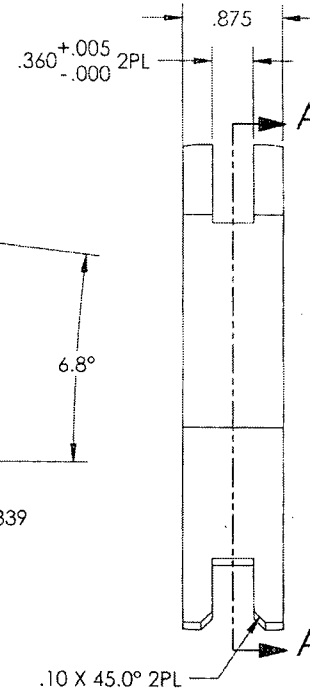
02744

QTY	REV	DESCRIPTION	MATL	SPEC.
1	1	LOCKWASHER	601.1541	
1	1	RTV, LOCTITE 598	601.2045	
1	1	WASHER	601.2764	
1	1	SCREW	601.2765	
1	1	BLADE	646.9711	
1	1	BODY	646.9710	
1	1	CUTTER SUB ASSY	646.9701	
1	1	FINO #	PART #	
1	1	DESCRIPTION	MATL	SPEC.
1	1	PARTS LIST		
1	1	APICAL INDUSTRIES		
1	1	2609 TRIPLE HEIGHTS DR.		
1	1	OCEANSIDE, CA. 92056-3512 (760) 724-5300		
1	1	CUTTER SUB ASSY		
1	1	SEL	646.9700	
1	1	SCALE	NONE	
1	1	SHEET	1 OF 3	

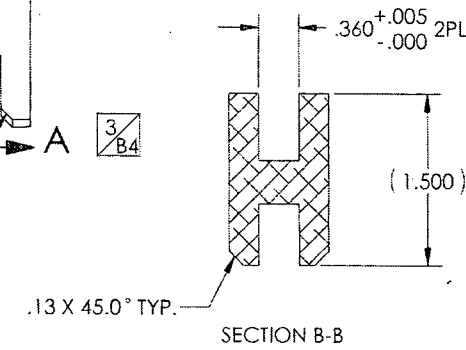
THE RIGHTS NOT CONTAINED HEREIN ARE THE SOLE PROPERTY OF
APICAL INDUSTRIES AND NO PART OF THIS DOCUMENT
THE WRITTEN PERMISSION OF APICAL INDUSTRIES IS FORBIDDEN



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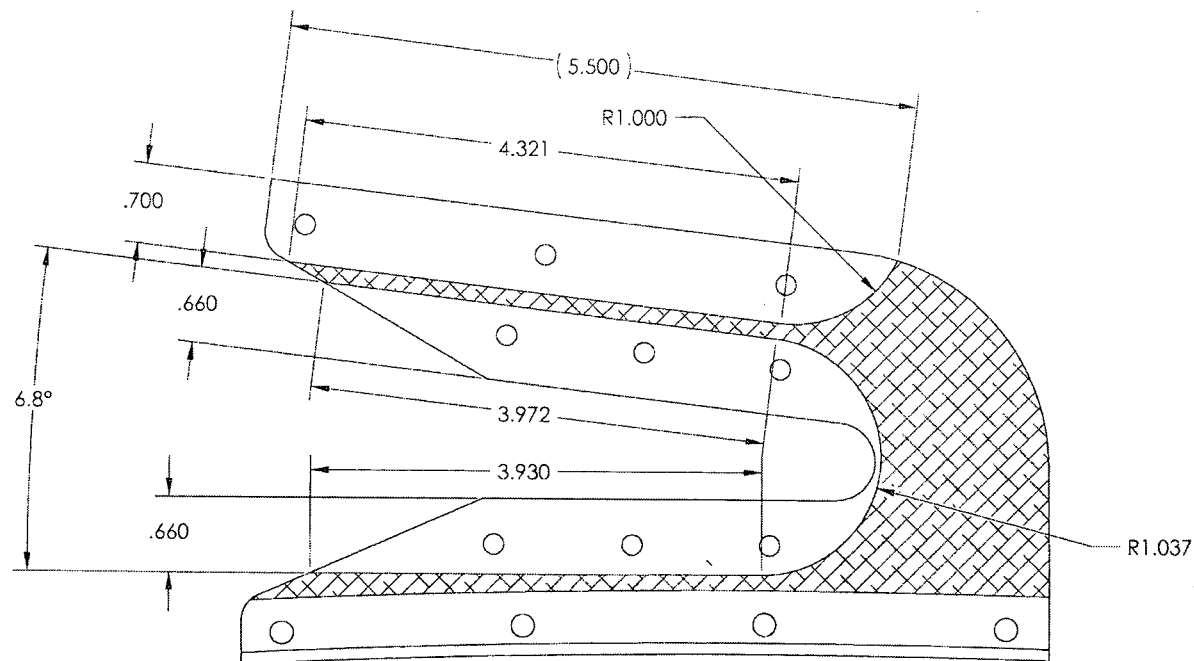


3/84



ORDER DATE: 05-24-04 ORDER NO.: 05-24-04 P. 05-24-04 P. 05-24-04 P. 05-24-04		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
CONTRACT NO.:		CUTTER SUB ASSY	
QUALITY CONTROL SPECIFIED DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED SURFACE FINISHES: 100 SURFACE TOLERANCES: 100		REV: 07M16 SCALE: NONE	REV: N/C SHEET: 2 OF 5

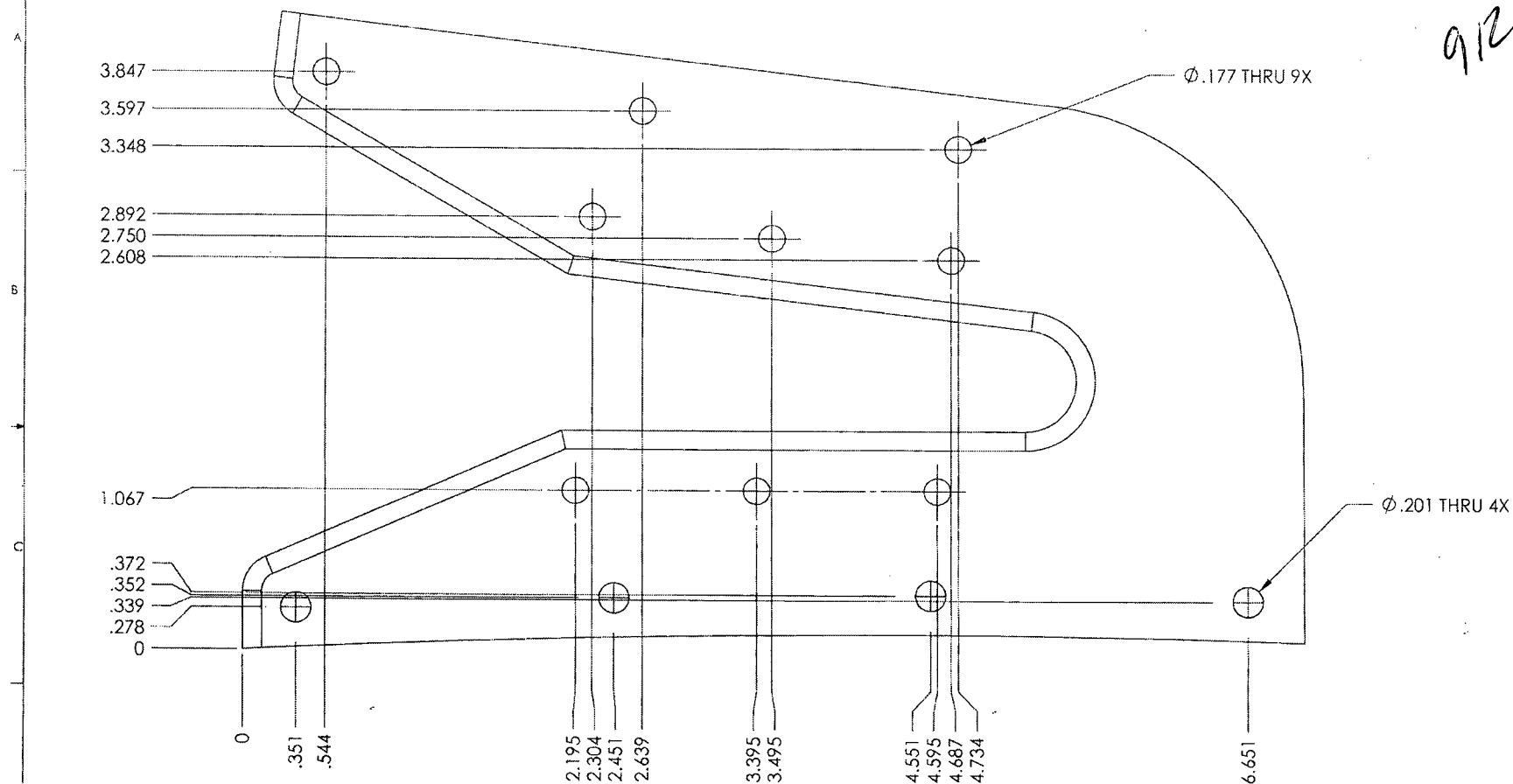
91287

SECTION A-A 

DIAGNOSE DATE (W/O DATA) 05-23-09 PART NUMBER 8 ROLAND DRAWING APPROVAL BY WJG 05-23-09 CONTRACT NO		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760) 874-5300	
CUTTER SUB ASSY			
UNITS CHANGE SPECIFIED OVERALL LENGTH 11.000 OVERALL DIA. 1.000 2 PLACES DRAGGALS 1.000 2 PLACES DRAGGALS 1.000 4 DRAGGALS 1.000		SET B CODE CAGE 07M26 SCALE NONE	DYN. MO. 646.9700 SHEET 3 OF 5
		DYN. MO. N/C	

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9/12/87



HOLE LOCATIONS +/- .002

ORIGINAL DATE 10/24/87		DESIGNED BY P. SPALVO		APICAL INDUSTRIES	
DRAWN BY P. SPALVO		CHECKED BY P. SPALVO		2608 TEMPLE HEIGHTS DR.	
DATE 10/24/87		PROJECT CUTTER SUB ASSY		OCEANSIDE, CA. 92056-3512 (760)724-5300	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DECIMALS ARE FRACTIONS ANGLES ARE DEGREES		SHEET NO. B		DWG. NO. 646.9700	
SCALE NONE		SHEET 4 OF 5		REV. N/C	

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91287

.340^{+0.000}
-.005

Ø.177 THRU
3X

37.2°

.250

1.500

1.200

2.400

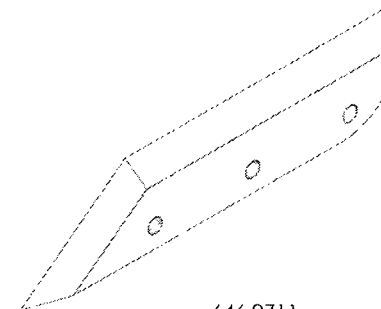
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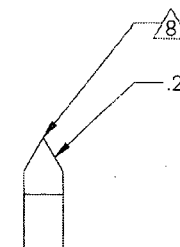
.500

.985

R.750



646.9711



.29 X 30.0° TYP.

DESIGNED BY: CS-MJP DRAWN BY: CS-MJP CHECKED BY: P. DAVO APPROVED BY: P. DAVO DATE: 10/1/87 CONTRACT NO:	APICAL INDUSTRIES 2609 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS ±.005 2 PLACE DECIMALS ±.005 ANGLES ±.5°	CUTTER SUB ASSY REV: 07/22/86 Dwg No: 646.9700 SCALE: NONE SHEET: 5 OF 5